

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A Co-Cr-Mo alloy fine wire for biomaterials, consisting of: 26 to 31 weight % of Cr; more than 8 weight % to 16 weight % of Mo; and the remainder of Co and inevitable impurities, the alloy being Ni-free; the wire having a diameter of 200 micrometers or less and a degree of roundness (minor diameter/major diameter) of lateral cross section of 0.6 or more, and a uniform structure with a concentration ratio of maximum Mo concentration phase with respect to minimum Mo concentration phase of 1.8 or less when Mo concentration is measured at one or more arbitrarily selected cross sections of said fine wire,

wherein the wire was obtained by injecting the melted Co-Cr-Mo alloy from a nozzle to form a melted alloy jet and cooling and solidifying the melted alloy jet ~~and was not subjected to wire drawing.~~

2. (Previously Presented) The Co-Cr-Mo alloy fine wire of claim 1, wherein the structure is uniform with the concentration ratio of maximum Co concentration phase to minimum Co concentration phase of 1.1 or less when Co concentration is measured at one or more arbitrarily selected cross sections of said fine wire.

3. (Previously Presented) The Co-Cr-Mo alloy fine wire of claim 1, wherein the structure is uniform with the concentration ratio of maximum Cr concentration phase to minimum Cr concentration phase of 1.1 or less when Cr concentration is measured at one or more arbitrarily selected cross sections of said fine wire.

4. (Original) The Co-Cr-Mo alloy fine wire of claim 1, wherein the roundness of lateral cross section is 0.7 or more.

5. (Withdrawn) A manufacturing method for Co-Cr-Mo alloy fine wire, the method comprising the steps of:

injecting a molten alloy comprising 26 to 31 weight % of Cr, 8 to 16 weight % of Mo, and the remainder of Co and inevitable impurities from a nozzle with an inner diameter of 200 micrometers or less to form a molten alloy jet; and

solidifying the molten alloy jet in a coolant layer formed along an inner circumference of a rotating cylindrical drum.

6. (Withdrawn) A manufacturing method for Co-Cr-Mo alloy fine wire, the method comprising the steps of:

injecting a molten alloy comprising 26 to 31 weight % of Cr, 8 to 16 weight % of Mo, and the remainder of Co and inevitable impurities from a nozzle of 200 micrometers or less in diameter to form a molten alloy jet; and

cooling and solidifying the molten alloy jet in cooling gas.

7. (Withdrawn) A manufacturing method for Co-Cr-Mo alloy fine wire, the method comprising the steps of:

injecting a molten alloy comprising 26 to 31 weight % of Cr, 8 to 16 weight % of Mo, and the remainder of Co and inevitable impurities from a nozzle of 200 micrometers or less in diameter to form a molten alloy jet;

feeding cooling gas into a tube collecting gas disposed in a manner so as to surround the falling path of the molten alloy jet to solidify the molten alloy jet; and

discharging the fine wire from the discharge part of the tube collecting gas to outside.

8. (Withdrawn) The manufacturing method for Co-Cr-Mo alloy fine wire of claim 6, wherein the cooling gas is a gas containing oxygen.

9. (Withdrawn) The manufacturing method for Co-Cr-Mo alloy fine wire of claim 6, wherein the cooling gas is composed of a first gas component comprising inert gas introduced into the tube collecting gas at a first position closer to the nozzle in the falling direction of the molten alloy jet, and a second gas component comprising oxidizing gas introduced into the tube collecting gas at a second position at lower side of the first position.

10. (Withdrawn) The manufacturing method for Co-Cr-Mo alloy fine wire of claim 9, wherein the first gas component is argon or helium, and the second gas component is oxygen or carbon dioxide.

11. (Original) A planar body formed by weaving, knitting or nonwoven processing of the Co-Cr-Mo alloy fine wire of claim 1.

12. (Original) A tubular body formed by weaving, knitting or nonwoven processing of the Co-Cr-Mo alloy fine wire of claim 1.

13. (Original) A stranded wire formed by processing of the Co-Cr-Mo alloy fine wire of claim 1.

14. (Original) A cable formed by processing of the Co-Cr-Mo alloy fine wire of claim 1.

15. (Currently Amended) A Co-Cr-Mo alloy fine wire for biomaterials, consisting of 26 to 31 weight % of Cr, more than 8 weight % to 16 weight % of Mo; and the remainder of Co and inevitable impurities, the alloy being Ni-free; the wire having a diameter of 200 micrometers or less and a degree of roundness (minor diameter/major diameter) of lateral cross section is 0.6 or more, and wherein an internal structure is composed of either gamma phase (Co base solid solution of face-centered cubic system) or epsilon phase (Co base solid solution of hexagonal close-packed system) only, or both of them only,

wherein the wire was obtained by injecting the melted Co-Cr-Mo alloy from a nozzle to form a melted alloy jet and cooling and solidifying the melted alloy jet ~~and was not subjected to wire drawing.~~

16. (Original) The Co-Cr-Mo alloy fine wire of claim 15, wherein the roundness of lateral cross section is 0.7 or more.

17. (Withdrawn) A manufacturing method for Co-Cr-Mo alloy fine wire, the method comprising the step of:

injecting a molten alloy comprising 26 to 31 weight % of Cr, 8 to 16 weight % of Mo, and the remainder of Co and inevitable impurities into a coolant layer formed along the inner circumference of a rotating cylindrical drum to obtain a fine wire of diameter of 200 micrometers or less, and roundness (minor diameter/major diameter) of lateral cross section of 0.6 or more, with an internal structure substantially composed of either gamma phase (Co base solid solution of face-centered cubic system) or epsilon phase (Co base solid solution of hexagonal close-packed system) only, or both of them only.

18. (Withdrawn) A manufacturing method for Co-Cr-Mo alloy fine wire, the method comprising the steps of:

injecting a molten alloy comprising 26 to 31 weight % of Cr, 8 to 16 weight % of Mo, and the remainder of Co and inevitable impurities from a nozzle of 200 micrometers or less in diameter; and

cooling and solidifying the injection jet in cooling gas to obtain a fine wire of diameter of 200 micrometers or less, and roundness (minor diameter/major diameter) of lateral cross section of 0.7 or more, with the internal structure substantially composed of either gamma phase (Co base solid solution of face-centered cubic system) or epsilon

phase (Co base solid solution of hexagonal close-packed system) only, or both of them only.

19. (Withdrawn) A manufacturing method for Co-Cr-Mo alloy fine wire, the method comprising the steps of:

injecting downward a molten alloy comprising 26 to 31 weight % of Cr, 8 to 16 weight % of Mo, and the remainder of Co and inevitable impurities in falling state by a nozzle of 200 micrometers or less in diameter to form a molten alloy jet;

disposing a tube collecting gas so as to surround the falling path of the molten alloy jet;

feeding a cooling gas for solidifying the molten alloy jet into the tube collecting gas by a cooling gas feed means; and

discharging a fine wire obtained by solidification of the molten alloy jet to outside from the tube collecting gas by a discharge means;

thereby obtaining a fine wire of diameter of 200 micrometers or less, and roundness (minor diameter/major diameter) of lateral cross section of 0.7 or more, with the internal structure substantially composed of either gamma phase (Co base solid solution of face-centered cubic system) or epsilon phase (Co base solid solution of hexagonal close-packed system) only, or both of them only.

20. (Withdrawn) The manufacturing method for Co-Cr-Mo alloy fine wire of claim 18, wherein the cooling gas is a gas containing oxygen.

21. (Withdrawn) The manufacturing method for Co-Cr-Mo alloy fine wire of claim 19, wherein the cooling gas is composed of a first gas component comprising inert gas introduced into the tube collecting gas at a first position closer to the nozzle in the falling direction of the molten alloy jet, a second gas component comprising oxidizing gas introduced into the tube collecting gas at a second position at lower side of the first position, and a third gas component of higher cooling capacity than the first and second gas components introduced into the tube collecting gas at a third position at lower side of the second position.

22. (Withdrawn) The manufacturing method for Co-Cr-Mo alloy fine wire of claim 21, wherein the first gas component is argon or helium, and the second gas component is oxygen or carbon dioxide.

23. (Original) A planar body formed by weaving, knitting or nonwoven processing of the Co-Cr-Mo alloy fine wire of claim 15.

24. (Original) A tubular body formed by weaving, knitting or nonwoven processing of the Co-Cr-Mo alloy fine wire of claim 15.

25. (Original) A stranded wire formed by processing of the Co-Cr-Mo alloy fine wire of claim 15.

26. (Original) A cable formed by processing of the Co-Cr-Mo alloy fine wire of claim 15.